

King County CSI Project
Kirkland Pump Station - Construction Cost Estimate
Initial Pump Station Upgrade

Item	Units	Unit Cost	Quantity	Estimated Cost	Subtotals
Realign and Upsize Influent Sewer					
Concrete Demolition	LS	\$2,000	1	\$2,000	
Traffic Control	LS	\$4,000	1	\$4,000	
Miscellaneous Site Work	LS	\$3,000	1	\$3,000	
Erosion and Sediment Control	LS	\$1,000	1	\$1,000	
24" Sanitary Sewer w/o Surface Restoration	LF	\$220	97	\$21,340	
30" Sanitary Sewer w/o Surface Restoration	LF	\$270	177	\$47,790	
36" Sanitary Sewer w/o Surface Restoration	LF	\$320	22	\$7,040	
Manholes	EA	\$5,000	3	\$15,000	
Half Width Pavement Replacement	SY	\$90	310	\$27,900	
Sluice Gate	EA	\$28,000	1	\$28,000	
Bypass Pumping	LS	\$30,000	1	\$30,000	
Subtotal					\$187,100
Replace Grating in the Wetwell					
Demolish Existing Grating	LS	\$1,000	1	\$1,000	
RTP Grating	SF	\$40	54	\$2,160	
RTP Railing	LF	\$120	36	\$4,320	
RTP Supports	LS	\$3,000	1	\$3,000	
Subtotal					\$10,500
Float Switches for the Wetwell					
Float Switch Assembly - High Level Controls	EA	\$5,500	1	\$5,500	
Float Switch Assembly - Low Level Shutoff	EA	\$4,000	1	\$4,000	
Miscellaneous Electrical and Controls	LS	\$5,000	1	\$5,000	
Subtotal					\$14,500
Replace Flowmeter					
14" Pipe	LF	\$125	20	\$2,500	
Pipe Fittings	EA	\$1,200	6	\$7,200	
Flowmeter Vault	LS	\$12,000	1	\$12,000	
12" Flowmeter	EA	\$15,000	1	\$15,000	
Surface Restoration	SY	\$90	10	\$900	
Miscellaneous Sitework	LS	\$8,000	1	\$8,000	
Traffic Control	LS	\$4,000	1	\$4,000	
Subtotal					\$49,600
Electrical System Improvements					
600 V Motor Control Centers	EA	\$22,000	1	\$22,000	
15 kV Automatic Transfer Switch	EA	\$30,000	1	\$30,000	
Miscellaneous Electrical	LS	\$10,000	1	\$10,000	
Subtotal					\$62,000
HVAC System Modifications					
RTP Exhaust Fan	EA	\$8,000	1	\$8,000	
RTP Supply Fan	EA	\$8,000	1	\$8,000	
Drywell AHU	EA	\$8,000	2	\$16,000	
Aluminum Ductwork and Dampers	LS	\$4,000	1	\$4,000	
RTP Ductwork and Dampers	LS	\$5,000	1	\$5,000	
HVAC System Balancing	LS	\$5,000	1	\$5,000	
Subtotal					\$30,000
Underground Diesel Storage Tank					
Storage Tank - 1000 Gallon and Appurtenances	LS	\$8,000	1	\$8,000	
Automatic Tank Gauging System	LS	\$2,000	1	\$2,000	

Miscellaneous Piping	LS	\$2,000	1	\$2,000	
Concrete Pad	CY	\$300	2	\$600	
Landscaping	LS	\$3,000	1	\$3,000	
Subtotal					\$15,600
Replace Backflow Preventer					
2" Reduced Pressure Backflow Preventer	EA	\$500	1	\$500	
1" Backflow Preventer for Irrigation Supply	EA	\$200	1	\$200	
2" Copper Piping and Fittings	LS	\$1,200	1	\$1,200	
Miscellaneous Mechanical and Penetrations	LS	\$500	1	\$1,000	
Subtotal					\$2,900
Upgrade Seal Water System					
New Seal Water Pumps	EA	\$2,500	2	\$5,000	
Miscellaneous Equipment	LS	\$1,200	1	\$1,000	
Subtotal					\$6,000
Noise Reduction					
Noise Attenuation Panels	SF	\$25	1,100	\$27,500	
Subtotal					\$27,500
Aesthetic, Drainage and Landscaping Improvements					
6" Perforated Drainage Pipe and Backfill	LF	\$24	100	\$2,400	
Irrigation System	SF	\$2	800	\$1,600	
Landscaping Plants and Material	LS	\$6,000	1	\$6,000	
Subtotal					\$10,000
Replace Pumps, Discharge Piping, and Install New Forcemain Header					
Concrete Demolition	LS	\$4,000	1	\$4,000	
Non-Clog Pumps - 150 HP	EA	\$70,000	3	\$210,000	
10" Pipe	LF	\$110	18	\$1,980	
10" Fittings	EA	\$1,000	12	\$12,000	
10" Check Valve	EA	\$8,700	3	\$26,100	
10" Plug Valve	EA	\$7,000	3	\$21,000	
18" Pipe	EA	\$190	18	\$3,420	
18" Fittings	EA	\$1,900	4	\$7,600	
VFDs	EA	\$48,000	3	\$144,000	
Main Control Panel, PLCs, etc	LS	\$150,000	1	\$150,000	
Miscellaneous Mechanical	LS	\$20,000	1	\$20,000	
Miscellaneous Structural	LS	\$20,000	1	\$20,000	
Miscellaneous Electrical	LS	\$10,000	1	\$10,000	
Subtotal					\$630,100
Install Replace 14" ACP					
Traffic Control, Erosion Control, Etc . .	LS	\$50,000	1	\$50,000	
18" Forcemain	LF	\$180	2,100	\$378,000	
Subtotal					\$428,000
SUBTOTAL					\$1,473,800
Contingency @	30%				\$442,000
SUBTOTAL					\$1,915,800
Sales Tax @	8.6%				\$165,000
Total Estimated Capital Cost					\$2,081,000
Allied Costs	35%				\$728,000
Total Estimated Project Cost					\$2,809,000

King County CSI Project
Kirkland Pump Station - Construction Cost Estimate
Capacity Improvements

Item	Units	Unit Cost	Quantity	Estimated Cost	Subtotals
Replace Pump Suction Piping Accommodate Higher Flows					
12" Pipe	LF	\$110	20	\$2,200	
12" Fittings	EA	\$1,200	12	\$14,400	
12" Knife Gate Valves	EA	\$6,000	3	\$18,000	
Subtotal					\$34,600
Modify Wetwell and Pump Suction to Accommodate Higher Flows					
Concrete Demolition	LS	\$10,000	1	\$10,000	
24" Temporal Influent Piping	LF	\$250	40	\$10,000	
Temporary MHs	EA	\$3,000	2	\$6,000	
Concrete	CY	\$700	3	\$2,100	
Vortex Breakers and Concrete Fillets	LS	\$3,000	1	\$3,000	
Temporary Piping	LS	\$10,000	1	\$10,000	
Bypass Pumping	LS	\$60,000	1	\$60,000	
Subtotal					\$101,100
SUBTOTAL					\$135,700
Contingency @	30%				\$41,000
SUBTOTAL					\$176,700
Sales Tax @	8.6%				\$15,000
Total Estimated Capital Cost					\$192,000
Allied Costs	35%				\$67,000
Total Estimated Project Cost					\$259,000

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